Health IT Standards Committee
A Public Advisory Body on Health Information Technology to the National Coordinator for Health IT

Semantic Standards Workgroup

2015 Edition Certification NPRM Prioritization Recommendations/Standards Readiness Assessment

Becky Kush, co-chair
Jamie Ferguson, co-chair

June 24, 2015

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Health IT Standards Committee
A Public Advisory Body on Health Information Technology to the National Coordinator for Health IT

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Patricia Greim	Office of the National Coordinator for Health IT

Semantic Standards – Certification Rule Workplan

Health IT Standards Committee
A Public Advisory Body on Health Information Technology to the National Coordinator for Health IT

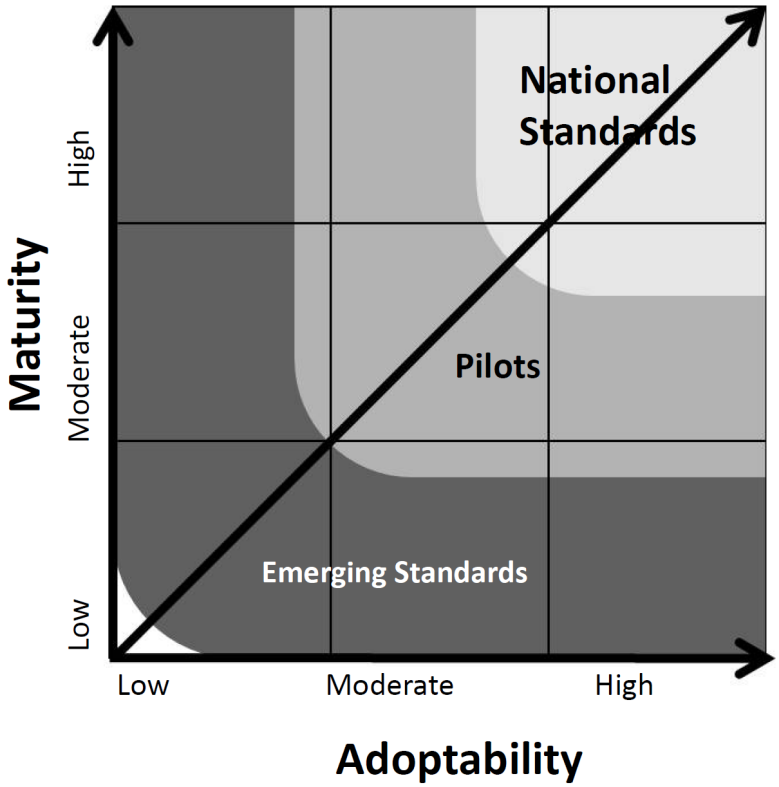
	Meetings	Task
✓	**March 27, 2015 2:30pm-3:30pm ET HITSC Administrative Meeting**	• **Charged by HITSC with commenting on the Certification NPRM**
✓	April 1, 2015, 12:00pm-1:30pm	• Certification NPRM Introduction and process
✓	***April 22, 2015 – HITSC meeting***	• **Interoperability Roadmap V.1 comments to the HITSC**
✓	April 24, 2015 1:00pm ET	• Group 2 - Small Group Discussion #1
✓	April 30, 2015 2:00pm ET	• Group 2 - Small Group Discussion #2
✓	May 4, 2015, 11:30 -1:00pm	• Group 2 to report out to full workgroup
✓	May 15, 2015, 10:30 -11:30am	• Group 1 to report out to full workgroup
✓	May 18, 2015, 10:00am-11:30am	• Finalize Comments for both groups 1 & 2
✓	***May 20, 2015 – HITSC Meeting***	• ***Present Certification NPRM Comments to the HITSC***
✓	June 8, 2015 – 11:30am-1:00pm	• Prioritization recommendations for NPRM Standards
✓	June 11, 2015 – 12:00pm-1:30pm	• Prioritization recommendations for NPRM continued
➔	***June 24, 2015 – HITSC Meeting***	• ***Present prioritization recommendations***

HITSC Readiness Evaluation and Classification Criteria for Technical Specifications

The Metrics the HITSC has adopted for helping to determine when a technology specification is ready to become a national standard.

Maturity Criteria:
- Maturity of Specification
- Maturity of Underlying Technology Components
- Market Adoption

Adoptability Criteria:
- Ease of Implementation and Deployment
- Ease of Operations
- Intellectual Property



See Evaluating and classifying the readiness of technology specifications for national standardization (PDF) at jamia.oxfordjournals.org

Standards Rating & Prioritization Overview

- Principles for our ratings follow the article's reasoning, criteria, and attributes
  - Standards still under development or in draft stage (DSTU) by definition cannot be High maturity (e.g. FHIR profiles, application access APIs, others)
  - With evidence of successful pilots Maturity/Adoptability generally is Medium
  - Need to consider the relationship between the target/desired level of adoption vs. the current level, and consider other barriers to adoption (e.g. associated infrastructure) when rating adoptability
- There are items which may not meet criteria for National Standards but may still be valuable or necessary to designate
  - ICD-10-CM and ICD-10-PCS are not in use but specified in HIPAA rules
  - UCUM is not widely adopted but is the only choice to standardize units
- It can be good to focus on items in isolation but when considered in combination or in a broader context they may be problematic
  - LOINC for laboratory CPOE has been successful in isolated instances but still has major barriers to broad adoption
- Using the criteria and definition of attributes, standards not listed as "High/High" should not qualify for designation as National Standards, except as noted

Standards Readiness for Inclusion in Certification

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
CDT **CDT: Code on Dental Procedures and Nomenclature**	§ 170.315(b)(1) – Transitions of care	H	H
	§ 170.315(b)(6) – Data portability	H	H
	§ 170.315(e)(1) – View, download, and transmit to 3rd party	H	H
	§ 170.315(g)(6) – Consolidated CDA creation performance	H	H
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
CPT-4 CPT - Current Procedural Terminology	§ 170.315(b)(1) – Transitions of care	H	H
	§ 170.315(b)(6) – Data portability	H	H
	§ 170.315(e)(1) – View, download, and transmit to 3rd party	H	H
	§ 170.315(g)(6) – Consolidated CDA creation performance	H	H
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
ICD-10-PCS International Classification of Diseases 10th Revision Procedure Coding System	§ 170.315(b)(1) – Transitions of care	L	L
	§ 170.315(b)(6) –Data portability	L	L
	§ 170.314(e)(1) – View, download, and transmit to 3rd party	L	L
	§ 170.315(g)(6) – Consolidated CDA creation performance	L	L
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
Logical Observation Identifiers Names and Codes (LOINC®) Database version 2.50 **Logical Observation Identifiers Names and Codes (LOINC®) Database version 2.50** **(Continued on Next Slide)**	§ 170.315(a)(2) - Computerized provider order entry – laboratory	L	L
	§ 170.315(a)(6) – Vital signs, body mass index, and growth charts	H	M
	§ 170.315(a)(21) – Social, psychological, and behavioral data	M	L
	§ 170.315(b)(1) – Transitions of care	H	H
	§ 170.315(b)(4) – Incorporate laboratory tests and values/results	H	H
	§ 170.315(b)(5) – Transmission of laboratory test reports	H	M

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
Logical Observation Identifiers Names and Codes (LOINC®) Database version 2.50 **Logical Observation Identifiers Names and Codes (LOINC®) Database version 2.50** **(Continued from Previous Slide)**	§ 170.315(b)(6) – Data portability	H	H
	§ 170.315(e)(1) – View, download, and transmit to 3rd party	H	H
	§ 170.315(f)(3) – Transmission to public health agencies – reportable laboratory tests and values/results	M	M
	§ 170.315(f)(4) – Transmission to cancer registries	M	M
	§ 170.315(g)(6) – Consolidated CDA creation performance	H	H
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
"Race & Ethnicity – CDC" code system in the PHIN Vocabulary Access and Distribution System (VADS), Release 3.3.9 **CDC Race & Ethnicity**	§ 170.315(a)(5) – Demographics	H	M
	§ 170.315(b)(1) – Transitions of care	H	M
	§ 170.315(b)(6) – Data portability	H	M
	§ 170.315(c)(4) – Clinical quality measures – filter	M	M
	§ 170.315(e)(1) – View, download, and transmit to 3rd party	H	M
	§ 170.315(g)(6) – Consolidated CDA creation performance	H	M
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Adoptability is hampered by the lack of alignment across federal agencies.

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
The Office of Management and Budget Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity, Statistical Policy Directive No. 15, as revised, October 30, 1997 **OMB Race and Ethnicity**	§ 170.315(a)(5) – Demographics	H	M
	§ 170.315(b)(1) – Transitions of care	H	M
	§ 170.315(b)(6) – Data portability	H	M
	§ 170.315(e)(1) – View, download, and transmit to 3rd party	H	M
	§ 170.315(g)(6) – Consolidated CDA creation performance	H	M
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Adoptability is hampered by the lack of alignment across federal agencies.

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
Birth sex must be coded in accordance with HL7 Version 3 attributed as follows: (i) Male. M (ii) Female. F (iii) Unknown. UNK	§ 170.315(a)(5) – Demographics	M	M
	§ 170.315(a)(6) – Vital signs, body mass index, and growth charts	M	M
	§ 170.315(a)(21) – Social, psychological, and behavioral data	M	M
	§ 170.315(b)(1) – Transitions of care	M	M
	§ 170.315(b)(6) – Data portability	M	M
	§ 170.315(c)(4) – Clinical quality measures – filter	M	M
	§ 170.315(e)(1) – View, download, and transmit to 3rd party	M	M
	§ 170.315(g)(6) – Consolidated CDA creation performance	M	M
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Adoptability is hampered by the lack of alignment across federal agencies.

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
HL7 Version 3 attributed as follows: • **Other. nullFlavor OTH** • **Asked but unknown. nullFlavor ASKU**	§ 170.315(a)(21) – Social, psychological, and behavioral data	H	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
The Unified Code of Units of Measure, Revision 1.9 **UCUM Unified Codes for Measure**	§ 170.315(a)(6) – Vital signs, body mass index, and growth charts	H	M
	§ 170.315(a)(21) – Social, psychological, and behavioral data	H	M
	§ 170.315(b)(1) – Transitions of care	H	M
	§ 170.315(b)(6) – Data portability	H	M
	§ 170.315(e)(1) – View, download, and transmit to 3rd party	H	M
	§ 170.315(g)(6) – Consolidated CDA creation performance	H	M
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
HL7 Version 3 Implementation Guide: Family History/Pedigree Interoperability **HL7 V3**	§ 170.315(a)(15) – Family health history - pedigree	L	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
International Health Terminology Standards Development Organisation (IHTSDO) Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®), U.S. Edition, September 2014 Release **SNOMED CT** **(Continued on Next Slide)**	§ 170.315(a)(7) – Problem List	H	H
	§ 170.315(a)(12) – Smoking Status	H	M
	§ 170.315(a)(14) – Family Health History	H	H
	§ 170.315(a)(21) – Social, psychological, and behavioral data	H	H
	§ 170.315(b)(1) – Transitions of care	H	H
	§ 170.315(b)(2) – Clinical information reconciliation and incorporation	H	L
	§ 170.315(b)(6) – Data portability	H	H

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
International Health Terminology Standards Development Organisation (IHTSDO) Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®), U.S. Edition, September 2014 Release **SNOMED CT** **(Continued from Previous Slide)**	§ 170.315(c)(4) – Clinical quality measures – filter	M	M
	§ 170.315(e)(1) – View, download, and transmit to 3rd party	H	H
	§ 170.315(f)(3) –Transmission to public health agencies – reportable laboratory tests and values/results	M	M
	§ 170.315(f)(4) – Transmission to cancer registries	M	M
	§ 170.315(g)(6) – Consolidated CDA creation performance	H	H
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
The National Council for Prescription Drug Programs Formulary and Benefits Standard, Implementation Guide, Version 3, Release 0 (Version 3.0), April 2012 **NCPDP**	§ 170.315(a)(11) – Drug formulary and preferred drug list checks	H	M

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
HL7 Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes, Draft Standard for Trial Use, Release 2.0 **Consolidated CDA**	§ 170.315(b)(1) – Transitions of care	M	H
	§ 170.315(b)(2) – Clinical information reconciliation and incorporation	M	L
	§ 170.315(b)(6) – Data portability	M	H
	§ 170.315(b)(7) – Data segmentation for privacy – send	L	L
	§ 170.315(b)(9) – Care plan	M	H
	§ 170.315(e)(1) – View, download, and transmit to 3rd party	M	H
	§ 170.315(g)(6) – Consolidated CDA creation performance	M	H
	§ 170.315(g)(7) – Application access to Common Clinical Data Set	L	L
	§ 170.315(i)(1) – Electronic submission of medical documentation	M	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
ICD-10-CM*	§ 170.315(b)(1) – Transitions of care	L	L
	§ 170.315(b)(6) – Data portability	L	L
SCRIPT Standard, Implementation Guide, Version 10.6, October, 2008	§ 170.315(b)(3) – Electronic prescribing	H	H

*Although rated both low maturity and low adoptability, HIPAA requirements merit recognition as a standard.

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
RxNorm, a standardized nomenclature for clinical drugs produced by the United States National Library of Medicine, February 2, 2015 Release **RxNorm**	§ 170.315(b)(1) – Transitions of care	M	M
	§ 170.315(b)(2) – Clinical information reconciliation and incorporation	M	L
	§ 170.315(b)(3) – Electronic prescribing	M	H
	§ 170.315(b)(6) – Data portability	M	M
	§ 170.315(e)(1) – View, download, and transmit to 3rd party	M	M
	§ 170.315(g)(6) – Consolidated CDA creation performance	M	M
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
HL7 Standard Code Set CVX—Vaccines Administered, updates through February 2, 2015	§ 170.315(b)(1) – Transitions of care	H	H
	§ 170.315(b)(6) – Data portability	H	H
	§ 170.315(e)(1) – View, download, and transmit to 3rd party	H	H
	§ 170.315(f)(1) – Transmission to immunization registries	H	M
	§ 170.315(g)(6) – Consolidated CDA creation performance	M	M
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
National Drug Code Directory–Vaccine Codes, updates through January 15, 2015	§ 170.315(b)(1) – Transitions of care	M	M
	§ 170.315(b)(6) – Data portability	M	M
	§ 170.315(e)(1) –View, download, and transmit to 3rd party	M	M
	§ 170.315(f)(1) – Transmission to immunization registries	M	M
	§ 170.315(g)(6) – Consolidated CDA creation performance	M	M
	§ 170.315(g)(7) – Application access to common clinical data set	L	L

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
PHIN Messaging Guide for Syndromic Surveillance: Emergency Department, Urgent, Ambulatory Care, and Inpatient Settings, Release 2.0	§ 170.315(f)(2) – Transmission to public health agencies – syndromic surveillance	M	M
HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 2 (US Realm), Draft Standard for Trial Use, Release 1.1	§ 170.315(f)(3) – Transmission to public health agencies – reportable laboratory tests and values/results	M	M

Standards Readiness for Inclusion in Certification , continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
HL7 Implementation Guide for CDA© Release 2: Reporting to Public Health Cancer Registries from Ambulatory Healthcare Providers, Release 1	§ 170.315(f)(4) – Transmission to cancer registries	M	M
IHE Quality, Research, and Public Health Technical Framework Supplement, Structured Data Capture, Trial Implementation	§ 170.315(f)(5) – Transmission to public health agencies – case reporting	M	M

Standards Readiness for Inclusion in Certification, continued

Standard	Certification Criteria in Proposed Rule	Maturity L/M/H	Adoptability L/M/H
HL7 Implementation Guide for CDA® Release 2 – Level 3: Healthcare Associated Infection Reports, Release 1, U.S. Realm	§ 170.315(f)(6) – Transmission to public health agencies – antimicrobial use and resistance reporting	M	M
HL7 Implementation Guide for CDA Release 2: National Health Care Surveys (NHCS), Release 1 – US Realm, Draft Standard for Trial Use	§ 170.315(f)(7) – Transmission to public health agencies – health care surveys	M	M